IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of:

Vanita Mani et al.

Serial No.: 10/676,903

Filed: October 1, 2003

For: INTEGRAL LAUNDRY
CLEANING AND DRYING
SYSTEM AND METHOD

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Examiner:

Patel, Rita Ramesh

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July 16, 2008

/Tait R. Swanson/

Date

Tait R. Swanson, Reg. No. 48,226

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

Appellants respectfully submit this Pre-Appeal Brief Request for Review concurrently with a Notice of Appeal. In view of the clear legal and factual errors set forth on pages 10-14 of the previous response and further below, Appellants respectfully request the Panel to withdraw all outstanding rejections.

In the Final Office Action, the Examiner rejected claims 1, 3-5, 7-9, 11-12, 14, 70, and 74 under 35 U.S.C. § 102(b) as being anticipated by Renzacci (U.S. Patent No. 5,887,454). The Examiner rejected claims 13, 15, 71, and 75-79 under 35 U.S.C. § 103(a) as unpatentable over Renzacci. The Examiner also rejected claims 6, 72, and 73 under 35 U.S.C. § 103(a) as unpatentable over Renzacci in view of Berndt et al. (U.S. Patent No. 6,059,845). These rejections are clearly improper and must be withdrawn.

Claim Rejections under 35 U.S.C. § 102

The Renzacci reference is missing features recited by independent claim 1.

Independent claim 1 recites, *inter alia*, "a <u>drying mechanism</u> pneumatically coupled to the laundry enclosure via an air inlet and an air outlet, <u>comprising</u>: a <u>vapor compression cycle</u> <u>system</u> comprising a condenser, an evaporator, and a compressor disposed in a closed fluid path, wherein the <u>condenser</u> is configured to <u>heat air</u> upstream of the air inlet; and wherein the <u>evaporator</u> is configured to <u>cool air</u> downstream of the air outlet."

The Renzacci reference does not teach or suggest the foregoing claim features, e.g., both a condenser and an evaporator of a vapor compression cycle system configured to heat air and cool air, respectively. In the Final Office Action, the Examiner appears to interpret the condenser 26 as the claimed condenser and the cooling unit 7 as the claimed evaporator. See Final Office Action, pages 2-3. The Examiner stated: "per the Renzacci reference the condenser 26 is a condenser and thus reads on claims wherein a condenser if configured to heat; the cooling unit 7 performs cooling functions and thus reads on claims wherein an evaporator is configured to cool." Final Office Action, pages 2-3 (emphasis added). As discussed below, the Renzacci reference does not teach or suggest an evaporator as the cooling unit 7. Appellants performed a word search of the Renzacci reference, and found absolutely no instances of the terms evaporator and evaporate anywhere in the text. The Examiner also stated "Renzacci teaches a heat exchanger 15 is installed in the drying air circuit downstream from preheating unit 19 (supplemental heating device) and cooling unit 7 (cooling device)." Final Office Action, page 3. The Examiner did not specifically address the "vapor compression cycle system" and the "closed fluid path" as recited in claim 1. Furthermore, the Examiner did not specifically address "the condenser is configured to heat air" and "the evaporator is configured to cool air" as recited in claim 1. As discussed below, these claim features are clearly missing from the Renzacci reference.

Appellants submit that the Examiner does not fully understand the elements recited in the present claims. Although Appellants do not intend or suggest that the specification should be read into the present claims, Appellants submit that the specification may be used as a reference to better understand the claimed subject matter. In particularly, Appellants stress that the

Renzacci reference, and the Examiner's rejection, both fail to address the vapor compression cycle system as recited in claim 1. The original specification discloses:

FIG. 4 is a block diagram illustrating an alternative embodiment of the integral laundry washing and drying system 200 in accordance with certain embodiments of the present technique. As illustrated, the system 200 comprises the laundry enclosure 202, the closed loop washing system 204 fluidly coupled to the laundry enclosure 202, and the closed loop drying system 206 pneumatically coupled to the laundry enclosure 202. However, in the illustrated embodiment, the closed loop drying system 206 comprises a refrigeration or vapor compression cycle system 258 having a condenser 260, an evaporator 262, a compressor 264, and a pressure reducing device 266 coupled together by a closed loop conduit, as indicated by arrows 268, 270, 272, and 274. In operation of the closed loop drying system 206, the condenser 260 functions as the heating device 232, while the evaporator 262 functions as the cooling device 234.

Turning specifically to the vapor compression cycle system 258, the compressor 264 compresses a working fluid (e.g., a refrigerant such as fluorocarbon R-22) in the vapor phase, thereby causing the temperature of the working fluid to increase to a relatively high temperature. The vapor compression cycle system 258 then circulates the hot, high-pressure working fluid through the condenser 260 (e.g., condenser coils), which transfers heat from the working fluid into the airflow 244 of the closed loop drying system 206. As a result of the heat transfer in the condenser 260, the working fluid condenses from a vapor to liquid. The vapor compression cycle system 258 then passes the working fluid through the pressure reducing device 266 (e.g., throttling valve), which substantially reduces the pressure and the temperature of the working fluid. The cool, lowpressure working fluid then enters the evaporator 262 (e.g., evaporator coils), which transfers heat into the working fluid from the heated airflow 250 of the closed loop drying system 206. As a result of the heat transfer in the evaporator 262, the working fluid evaporates or changes state from a saturated mixture of liquid and vapor into a superheated vapor.

Application, page 10, line 23 – page 11, line 20 (emphasis added). The passages above further emphasize the deficiencies of the Examiner's rejections, as these passages are clearly consistent with the claim language and contrastingly different than the Renzacci reference. In the Final Office Action, the Examiner cites elements that are not identical to the claimed subject matter. As discussed below, any reasonable reading of the Renzacci reference cannot support a *prima facie* case of anticipation of the present claims.

First, Appellants stress that the Renzacci reference fails to teach or suggest, *inter alia*, "a vapor compression cycle system comprising a condenser, an evaporator, and a compressor disposed in a closed fluid path, wherein the condenser is configured to heat air upstream of the

air inlet; and wherein the <u>evaporator</u> is configured to <u>cool air</u> downstream of the air outlet," as recited by independent claim 1. As noted above, Appellants performed a word search of the Renzacci reference, and found absolutely <u>no instances of the terms evaporator and evaporate anywhere in the text</u>. In the Final Office Action, the Examiner equated the cooling unit 7 with the claimed evaporator, yet the Renzacci reference does not support this reading of the cooling unit 7. The Renzacci reference merely discloses that the cooling unit 7 cools the air, yet it does not disclose an evaporator as the cooling unit 7. *See* Renzacci, col. 1, lines 58-60. For at least these reasons, among others, the Renzacci reference cannot anticipate independent claim 1 and its dependent claims.

Second, for sake of hypothetical argument, if the condenser 26 is interpreted as the claimed condenser and if the cooling unit 7 is interpreted as the claimed evaporator as suggested by the Examiner, then the Renzacci reference fails to teach or suggest these elements 7 and 26 as part of a vapor compression cycle system and a closed fluid path. As illustrated in FIG. 1, the Renzacci reference illustrates the cooling unit 7 as part of the drying air circulation system 4, whereas the condenser 26 is part of the solvent distillation system. The cooling unit 7 is simply not connected to a closed fluid path with the condenser 26. In fact, the cooling unit 7 is not even disclosed as an evaporator, a suggested by the Examiner. As illustrated in FIG. 1 and disclosed by the Renzacci reference, the cooling unit 7 is not part of the solvent distillation system and, thus, cannot possibly be interpreted as part of a vapor compression cycle system. Furthermore, the condenser 26 of the Renzacci reference is completely isolated from the drying air circulation system 4, such that it cannot possibly be interpreted to heat air upstream from the air inlet, as recited by claim 1. For at least these reasons, among others, the Renzacci reference cannot anticipate independent claim 1 and its dependent claims.

Third, for sake of hypothetical argument, if the air pre-heating unit 19 is interpreted as the claimed condenser and if the cooling unit 7 is interpreted as the claimed evaporator, then the Renzacci reference fails to teach or suggest these elements 7 and 19 as part of a vapor compression cycle system and a closed fluid path. Again, the Renzacci reference does not teach or suggest any closed fluid path including these elements 7 and 19, much less a vapor compression cycle system with these elements 7 and 19. Furthermore, the Renzacci reference does not teach or suggest that the air pre-heating unit 19 could be an evaporator, nor does the Renzacci reference teach or suggest that the cooling unit 7 could be a condenser. These claim

Serial No. 10/676,903

features are clearly missing from the Renzacci reference. For at least these reasons, among others, the Renzacci reference cannot anticipate independent claim 1 and its dependent claims.

In summary, despite various hypothetical interpretations of the Renzacci reference, the features recited above are clearly missing. Again, the Renzacci reference fails to teach or suggest "a drying mechanism pneumatically coupled to the laundry enclosure via an air inlet and an air outlet, comprising: a vapor compression cycle system comprising a condenser, an evaporator, and a compressor disposed in a closed fluid path, wherein the condenser is configured to heat air upstream of the air inlet; and wherein the evaporator is configured to cool air downstream of the air outlet." In view of these deficiencies, among others, Appellants respectfully request withdrawal of the foregoing rejection under Section 102.

Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claims 13, 15, 71, and 75-79 under 35 U.S.C. § 103(a) as being unpatentable over Renzacci. The Examiner also rejected claims 6, 72, and 73 under 35 U.S.C. § 103(a) as being unpatentable over Renzacci in view of Berndt. Appellants respectfully traverse these rejections. As discussed above, the Renzacci fails to teach or suggest various features recited by independent claim 1. Claims 13, 15, 71, and 75-79 depend from independent claim 1, and are believed to be allowable for at least the same reasons as discussed above with reference to claim 1. The Berndt reference does not obviate the deficiencies of the Renzacci reference. As a result, the cited references, taken alone or in hypothetical combination with one another, fail to teach or suggest the features recited in the present claims. According, Appellants respectfully request withdrawal of the foregoing rejections under Section 103.

Conclusion

Appellants respectfully submit that all pending claims are in condition for allowance.

Respectfully submitted,

Date: July 16, 2008 /Tait R. Swanson/

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